643* one of his father's wives. He was now wandering about haphazardly
175* and implored their protection.
726

648* Capture of Xieng-Khouang. Fearful lest there should be an alliance
721 between Souvanna-Kham-Phong and the king of Tran-Ninh (whose reinforcements might take them from the rear in their direct march on Muong-Swa), they agreed to support the rebel. They went up the Nam-Nhiep and lay siege to Xieng-Khouang which they took by assault and whose king was put to death and replaced by Kham-Gno who acknowledged himself their vassal.

Capture of Xieng-Thong (Luang-Prabang). Reinforced by a Phoueun contingent, they then moved forward towards Xieng-Dong-Xieng-Thong. Their troops were divided into two armies, and one of these, under the command of Fa-Ngoun, entered the valley of the Nam-Khane. The other, under Phi-Fa, went down the Nam-Suong,
721 but the latter was stricken with cholera and died on the march at Hat-
643* Thoi. When he reached Dane-Khoua, Fa-Ngoun demanded that his
726 grandfather, Kham-Phong, abdicate in his favor. The latter was
175* highly indignant and moved to attack his grandson, whom he en-
648* countered at Pak-Ming. His troops were defeated and had to retreat
/762/ in disorder, /44/ his capital was captured and the old sovereign, "mad with shame and grief," hanged himself in his palace at Xieng-Thong.

726 At the age of thirty-seven Fa-Ngoun proclaimed himself king of
643* "Lan-Xang" and at once demanded submission of all the Thai princes
175* of the Mékong. Without awaiting their "reactions" he set out to make
631 his authority accepted, and in a sort of triumphal march received the submission of all the chieftains of the northern muongs as far as the limits of the kingdoms of Xieng-Mai (Lan-Na) and Xieng-Houng (Sip-Song-Panas). He met with greater resistance in the south and had to enter into a struggle to the death against Phaya-Phao, prince of Vientiane, who had taken the leadership of the opposition.

175* The discovery by Georges Maspero in 1902, in the vicinity of the
633 present-day administrative capital of French Laos, of steles of Kmer
648* origin amidst the ruins of twenty-eight pagodas, makes it possible to
631 suppose that the first capital of the land was Say-Fong, that "dead city" stifled by the forest. In the time of its splendor it was the advanced citadel of Cambodian hegemony in Thai territory, but its importance declined quite rapidly, doubtless with the first blows struck against the suzerainty of Angkor by the kings of Sukhothai and

of Ayuthya. /45/ And even before it disappeared it had been supplanted by Vientiane, which was built some ten kilometers upstream, unless the two cities formed a single immense one or unless the first one moved without changing its name at first 175* 633 648* 631

Capture of Phaï-Nam (Vientiane) Whatever the case may be, the center of resistance against Fa-Ngoun was then called "Phaï-Nam" (thorny bamboos) because of the impenetrable vegetable belt which defended it like veritable ramparts. It resisted repeated assaults and Fa-Ngoun was able to get the better of it only by using a ruse. He had gold and silver projectiles shot at the bamboo enclosure and then simulated a retreat. The besieged army, seeing the royal troops fall back, thought that their delivery was at hand and came out to pick up the precious projectiles. Then the assailants suddenly returned to the charge and entered the city without difficulty (1). Phaya-Phao had to make his submission. 643* 721 175* 725 633 631

1. These tactics are celebrated in several Thaï legends to explain the capture of a stronghold.

He received his pardon and was kept on as governor of the principality.

In memory of this episode, the city was baptized /46/ "Vien-Kham" which signifies "gold enclosure." This was later corrupted to "Vientiane" (sandalwood enclosure) (1)

1. There is permanent confusion in the Laotian chronicles between the Vien-Kham on the banks of the Mékong and the Vien-Kham in Tran-Ninh.

Formation of the kingdom of Lan-Xang (1353). Fa-Ngoun, henceforth the uncontested master of a vast kingdom, gave it a strong organization and ruled over it as a despot. 643* 175* 642

He summoned an Oupahat or second king to him to assist him in his political duties and instituted a Council of ministers chosen from the princes of royal blood and arranged in a hierarchy according to their respective ranks and attributions. But he would suffer no infringement on his own authority, neither at court or in the provinces. He took terrible reprisals against the vassals who did not obey his orders blindly, and replaced nearly all of them in succession with mere governors as the fancy took him. /646/

pious king who justified the bonzes' prophecies by his deeds. He 643*
built a magnificent pagoda to the memory of his father, the
Wat-Visoun (2), the materials for which were requisitioned from 346
175*

2. The edifice which bears this name dates from the time of the king Zakarine (1898). The enormous "stupa" next to it, which covered rich treasures which have only recently come to light, is now in the process of being restored.

the vassals of the northern provinces. Legend has it that the raft
carrying the columns provided by the king of Tran-Ninh sank /539/
downstream from Pak-Vet, and the inhabitants of the region still say today that they can be seen at certain times of the year beneath the waters of the Nam-Khane.

Edict against the cult of the "Phis." The king's great piety 771
and his mystical attachment to the /73/ dogmas of orthodox 175*
Buddhism made him intolerant of the Brahmanic practices which 643*
continued to be honored by the peoples of his States. In 1527 he prohibited the cult of the Genii and decreed that all the temples erected to the "Phis" should be demolished. A pagoda called "Sisouvannathevalok" (1) was built on the very site of the sanctuary/778/

1. This pagoda was destroyed by a tornado in 1883. The king at that time, His Majesty Sisavang-Vong, had it rebuilt in 1905 on the original foundations.

of the tutelary Genie of the capital. But it was impossible, even for the supreme chief of existences, to drive from the heads of people as fatalistic as his subjects were the innumerable superstitions which they attached to accidents, to diseases and to the phenomena of sky, earth and water. Despite the royal ordinances the cult of the "Phis," together with a belief in sorcerers and witches, persisted and still persists today.

Phothisarath was the first of the kings of Lan-Xang to leave his 663
Xieng-Thong palace and reside at Vientiane for many years. 175*

Thanks to its central location and its comparative nearness to 633
the kingdoms of Ayuthya and Annam, this city had grown extensively as a consequence of the development of trade. The Kmers, who had been in full decline /74/ since the ruin of Angkor by the kings of Ayuthya, no longer had any influence there. The

663 Thais of the Menam, on the other hand, who were rid of the Cam-
175* bodians in the south but were pressed by the Burmese in the north, were
633 coming there in increasing numbers in search of gum lac and benzoin,
/439/ which they took back with them and sold to the Dutch navigators who had been sailing the waters of the Indian Ocean ever since the sixteenth century.

643* War against Ayuthya (1536). Phothisarath had just settled in
721 Vientiane when he received a visit from Ekaracha, the prince of
175* Ayuthya, who had been driven out and was being pursued by his relative the Phaya-Attit. He welcomed the fugitive and refused to give him up, and war was the result. The king of Ayuthya was halted at Muong-Khuk (1) by the Lan-Xang troops before he could even cross

1. On the right bank, a little way downstream from Vientiane.

the river and had to beat a retreat. He died when he reached home from a wound received in the course of the battle.

643* Relations with Annam. Phothisarath confirmed his peaceful in-
648* tentions with respect to the king of Annam. Relations between the
175* two peoples had become more frequent since their violent /75/ contact in 1479, and quite a few Annamites had remained in Lan-Xang after the retreat of Lê-Thanh-Tôn's troops. The two sovereigns exchanged presents and established neighborly relations between their States which were marked by a cordiality heretofore unknown, even before Lê-Loi and Lane-Kham-Dèng. This was true to such a degree that Lan-Xang became the refuge of the partisans of the Lê while the Mac usurpers held sway. One of these partisans, Nguyên-Câm, who was the ancestor of the present royal family, came to seek asylum there around 1530.

Succession of Xieng-Mai. In 1546 the throne of Lan-Na (Xieng-Mai) became vacant, and Phothisarath claimed the succession rights which he held through his mother, a princess of that kingdom. To establish his claim he sent the governor Sene-Si-Mun-Muong with a sizeable armed force which dispersed the local pretenders and rapidly overcame any hesitation on the part of the latters' partisans. The chief of the bonzes came in person to offer the crown of Lan-Na to the king of Lan-Xang, and the king accepted it in behalf of his eldest son,

When he returned to his States, Setthathirath endeavored to win over permanently to his cause the chieftains of Lakhone, Xieng-Khong, Xieng-Hai, /80/ Muong-Pray and Muong-Nan who had not supported Bureng-Naung, and when he was sure of their support he advanced as far as Xieng-Sen. But there he soon learned that the governor of Xieng-Hai had been taken prisoner by the Burmese and that his sister Nang-Kalay had been treacherously abducted. In spite of his anger, he judged it prudent to withdraw in the company of his allies, who left their governments in the hands of Bureng-Naung's lieutenants. 726 643* 648* 175*

Treaty of alliance with Ayuthya (1560). In order to oppose the common danger, he took the first steps towards reconciliation with the king of Ayuthya, to whom he proposed a treaty of alliance. The Siamese, who were rebuilding the ruins of their capital with courage but not without disquietude, joyfully accepted and their prince gave one of his daughters to Setthathirath. A frontier pyramid was built on the watershed between the basin of the Mekong and that of the river of Nan which flows down to the Menam. Solemnly surrounded by their courts, the two kings swore reciprocal friendship and assistance: "May the ties that bind us be prolonged from father to son down to our grandchildren and great-grandchildren; may quarrels be unknown between us and peace continue to reign /An unpaged photograph is inserted between pp. 80 and 81: "The That-Luong at Vientiane."--Translator/ /81/ until the day when the sun and the moon fall to the surface of the earth" (1). 728 643* 648* 175*

1. Cf. Lefevre-Pontalis, La lutte des Thaïs contre les Birmans au seizieme siecle.

Vientiane, capital of Lan-Xang (1563). In order to avoid any surprise by the common enemy as well as to maintain the connection with Ayuthya, Setthathirath left Luang-Prabang permanently and transferred the capital of Lan-Xang to Vientiane. 643* 648* 175*

He was the true founder of this city which owes to him the splendor with which it shone during all of the seventeenth century and part of the eighteenth. He first surrounded it with solid bastion fortifications (2), then in the center near the river built the 633 643* 175* 172

2. From the vestiges which still remained around 1900 before the canal was dug and the circular boulevard laid out, /712/

633 Lunet de la Jonquiere has deduced that the ramparts of
643* Vientiane were composed of brick walls from four to six
175* meters in height with an earth banquette inside. They in-
172 cluded three sections, the salients of which were provided
/712/ with circular forts about eight meters high. Two gates which were fortified and crowned with spearhead ornaments gave entrance to the second section, one on the east towards the That-Luong, and the other on the west at the exit of the present Luang-Prabang road.

royal palace in the pagoda of which the emerald Buddha (Pra-Keo), the sign of power and command /82/ which he had brought from Xieng-Mai in 1548 (1), was placed.

/778/ 1. The emerald Buddha was in reality cut from a block of green jasper. The Siamese were to capture it in 1778 and take it to Bangkok, of which it became the tutelary divinity and where the sumptuous temple which rises today in the first court of the royal palace was built for it in 1785.

172 Of the eighty some pagodas which Vientiane was to boast, the
633 Wat Pra-Keo was assuredly one of the greatest and most beautiful.
175* "The trees which veil it (today), the lianas which tie it to the columns and spread a mysterious shadow over its ruins make the visitor feel something of what the soul of the ancients felt on the threshold of a sacred wood. Brick openwork forms the enclosure and monumental staircases lead to the parvis. A dragon writhes on the ramps and raises its menacing head in a last coil. The columns of the gallery are graceful, tall, slender and without a base, but end in a capital of long, sharp leaves which fold outwards and look as though they were raised by the weight which they bear..." (2).

2. De Carne, op. cit. /Voyage en Indochine et dans l'Empire chinois. Paris, 1872./

175* The sanctuary was built on a terrace with three levels. The facade
172 opened onto a monumental portico whose three gateways and side
346 windows were richly framed /83/ /Page 83 is devoted to an illustra-
532 tion: "Ruins of the Pra-Keo at Vientiane"--Translator./ /84/ with many-colored sculptures. The whole edifice was entirely gilded on the outside.

they at least preserved their individuality and the prerogatives of their government. 648* 175*

/98/ Xieng-Khouang, the capital, was then a large and beautiful city whose numerous inhabitants were protected by an enclosure of deep moats and by forts which crowned the surrounding hillocks. The immense stone jars scattered pell-mell over its plain in the time when the Khas dominated the region (1) and "the wealth of 633 175* 172

1. Legend has it that these jars were constructed by the aboriginal Khas. For what purpose? -- A mystery. They may originally have been storehouses which served to shelter provisions on a road which has been frequented in all periods by migrating peoples. Perhaps rather they were designed to collect rainwater. Perhaps, finally, these monumental vases were simply mausoleums in which offerings were piled up to the shades of the dead. /415/

its sixty-two pagodas and of its shining Thats whose sides concealed treasures" had given it a renown which went far abroad.

Friendly relations were therefore resumed, as in the past, between the two States. Lan-Xang was again preparing to live in peace in its rediscovered autonomy when Nokeo-Koumane died while still very young and without leaving any survivors, in 1596 after a five years' reign. 648* 643* 175*

THAMMIKARATH (1582), KING 1596-1622.

New disorders were to be feared, /99/ /Page 99 is devoted to an illustration: "Tran-Ninh. The Plain of the Jars."--Translator/ /100/ and new competitions for the throne. Such was not the case, for the moment, thanks to the authority of Vongsa, a cousin by marriage of the dead king, who although was only fourteen years old was able to rally the suffrage of the court to his name. His mother was a sister of Setthathirath's last wife. The dynastic link was thus rather tenuous and the local chronicles do not fail to point out that on this date the power passed to the "junior" branch of the Khoun-Lo succession. 643* 175*

Vongsa reigned under the name of Thammikarath. In 1598 a son Oupagnouvarath was born to him, who had scarcely reached man's age when he developed a keen interest in the administration of his country. By virtue of his intelligence and his precocious maturity of mind he soon acquired a genuine popularity both among 557 643* 175*

la Sainte-Chapelle, a la seconde boutique, a l'enseigne du Voyageur. 175* 114 /127/

naivete, the work /111/ does not have the ring of sincerity which constitutes the merit of the Dutch account. It was probably written from the reminiscences of Father J. M. Leria (1) and is of value

1. Father Giovanni-Maria Leria, a Piedmontese Jesuit, left Cambodia in April 1642 accompanied by some Cochinchinese neophytes with a caravan of Laotian traders who were returning to their country. He remained in Laos for five years "despite the opposition and the intrigues of the bonzes" and did not leave Vientiane until December 2, 1647. (Cf. Fr. Garnier, 1871, and Father Alex. de Rhodes, 1651.)

only as a document at second hand. It will nevertheless be of some interest to extract the following passages:

"In the East it (the kingdom of the 'Langiens') has the kingdom of Tonkin which stretches to the southwest towards Cochinchina, and further to the South that of Cambodia; in the southwest and the west the kingdom of Pegou; and in the north that of Ava and the province called U or Lu (2), and still further again to the north as 131 175*

2. See below, p. 176, note 1.

far as the frontiers which limit it in this direction, where there are certain peoples who are called Gnai. . . .

"Because of its fertility and because the things necessary to life are found there in abundance, the kingdom is so heavily populated that only a little while ago in the census which was taken of persons who were /112/ judged fit to serve the king at war and to bear arms, 500,000 were counted, not including the old people who are so numerous and so rubust that even of those who are a hundred years old a very large army might be formed for the defense of the kingdom if the need should arise. . . 421 433 161

"The chief city and the one in which the king ordinarily stays is situated in the middle of the kingdom, eighteen degrees toward our Arctic pole, and is called Langione. It has good moats and extremely high walls on one side, and on the other the great river to defend it against the undertakings of enemies. . . . The royal palace, the structure and symmetry of which are admirable, can 633 174 344

633 be seen from a great distance. To be sure, it extends over a prodigi-
174 ous area and is so large that one would take it for a city... The king's
344 apartments, which are embellished with a superb and magnificent portico and a large number of beautiful rooms accompanied by a large parlor, are all made of wood which will not decay and ornamented inside and outside with excellent bas-reliefs so delicately gilded that they seem rather to be covered with flakes of gold than gold leaf.

"From that point one enters the courtyards which are extremely spacious, and one first sees a long line of houses built entirely of brick and roofed /113/ with tile in which the second wives usually stay, and outside another row of houses built alongside in the same symmetry for the mandarins' officers. I could write a whole volume if I undertook a minute description of all the other parts of the palace, the riches, the departments, the gardens and a number of other such things...

565 "The houses of the principal lords and of well-to-do persons are
342 very high and beautiful, and are all made of wood with a great deal
352 of artifice and a greater or lesser number of ornaments, depending on the expense to which the individuals are willing to go, but I must confess that the common people and the poor are housed extremely badly
/793/ and that their dwellings are cabins and huts rather than houses. Only the talapoins (bonzes), who are the priests of the idols, have permission to build their monasteries and houses out of brick and stone. Instead of rugs and other such furnishings, persons of quality use small reed mats in which the weave is so delicate and so highly ornamented with figures and various leaf patterns that, to my mind, there is nothing more beautiful nor more pleasing to the eye. They ordinarily use them to cover the walls of /114/ their rooms and houses inside and outside, which they keep very clean and of which they take particular care...

643* "The king is absolute and independent... all the land belongs to
/423/ him, and he disposes as absolute lord of all that his subjects possess...
631 offices, employment, honors and wealth depend absolutely on the
174 king, who raises those persons who please him most to the highest offices in the kingdom.... The principal dignities and offices of the kingdom are eight in number. The first is that of viceroy general... and because the kingdom is divided into seven provinces seven other viceroys are appointed... there are also other governments of less consequence which depend on the former both in respect to civil affairs and to those which concern war.... Each of these provinces has
/701/ its militia, which consists of infantry and cavalry.

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CHAPTER V

THE LAOTIAN PRINCIPALITIES FROM 1707 TO 1836

Political situation of the Indo-Chinese peninsula at the dawn of the eighteenth century. As of the date which we have now reached, the political map of the Indo-Chinese peninsula had undergone profound modifications in the last three hundred years if we consider the limits assigned to the various Thai kingdoms which issued forth from Khoun-Borom's partitioning. Under the impulse of dynastic ambitions, the latter tried in their turn to dominate their neighbors, and the most fortunate among them became surrounded with vassal principalities which, so to speak, served the purpose of buffer states and passed from one hand to another according to the whims of fortune. 175*

Lan-Xang had had its life. Having lost its independence and its unity, it was to disappear as a state which was the embodiment of great and powerful suzerainty and which had long been solidly based in the Mekong valley on the traditional alliance /138/ with the Kmer kingdom, then in full decline itself, and the Siamese and Annamites were to divide the spoils. 1633 175*

Tran-Ninh, which had endured the Laotian protectorate with impatience ever since Souligna's expedition, was to profit by the circumstances in order to enter into open struggle with the kings of Vientiane. The latter would still be strong enough for another century to extract payment of their tribute by means of repeated expeditions, but the result of these perpetual hostilities would be to throw the princes of Xieng Khouang into the arms of the Annamite suzerain, who was to impose the most severe of dominations on them. 636 648*

The Burmese empire was no more than a glorious memory. The land of the Irrawaddy, unified in the eleventh century, disjointed in the thirteenth and regrouped in the sixteenth by Bureng-Naung, had since the conqueror's death again been divided into two enemy kingdoms, Burma in the north and Pegou in the south. With the same language, the same civilization and subject to the same influences, the two twin States were all the more eager to combat one another and no one could possibly have foreseen the end of this long duel even at the very moment (1710) when the Burmese hero Alompra was born, who was to reimpose unity and fill the peninsula with the clash of his arms in his turn. 175* 101

669 175* royal troops succeeded in dispersing the partisans of Intha-Som and forced them, after a bloody encounter, to retreat in disorder along the Nam-Ou. Ong-Ek swam across the river and fled to Phoutong-Nongboua. As for Intha-Som, he was able to gain the Sip-Song-Panas where he kept a close watch on events and waited for a more favorable opportunity.

Finally free to organize his conquest, King-Kitsarath endeavored to restore some measure of order in the kingdom, which was greatly in need thereof. Aided by his cousin Khamone-Noi (1), he succeeded

1. See p. 133.

within a few years in restoring tranquillity to his subjects. Luang-
/633/ Prabang, once again a royal metropolis, was slowly repopulated and resumed the foremost place in a diminished State.

633 175* 133 Gracefully stretching across the junction of the Mekong and the Nam-Khane and dominated by the verdant hill of the "Phou-Si," the city regained some of its animation and gradually became covered /181/ with new buildings grouped around the ancient pagodas which recalled the past grandeur of the legendary Muong-Swa.

"Moreover, the configuration of the principality's territory and the particular topography of the region combined at this river junction to provide all the elements for the prosperity of a great city. Luang-Prabang is in fact contained in the immediate zone where the region's three great navigable watercourses converge on the Mekong. These watercourses (Nam-Ou, Nam-Suong, Nam-Khane) have in the past favored the political centralization of the country as well as trade relations with China, Tonkin and Annam. Whereas both upstream and downstream for a distance of several hundred kilometers the banks of the river are constantly cut deep between the mountains and nowhere offer a surface of flat land which would lend itself to large agglomerations, here nature has provided on both banks a broad extent of land which can be cultivated as ricefields and is capable of supplying all the needs of a large population" (1).

1. Cf. Captain Cupet, Mission Pavie, Vol. III /Voyages au Laos et chez les sauvages du Sud-Est de l'Indochine (1900)/, p. 34.

643* 595 175* At his death, which occurred about 1726, King-Kitsarath left three daughters born of three different wives /182/ /Page 182 is

633
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Luang-Prabang (capital)

Distance from Vien-Tiane:
1. By the Mekong, 426 kilometers;
2. By land, 290 kilometers.

Population:

10 Europeans, 5,900 natives.

Posts occupied by the Native Guard:

Luang-Prabang.....1 chief guardsman.

Muong-Sai.....2 chief guardsmen.

Postal and Telegraph service:

1 inspector, head of the service.

Luang-Prabang.....Complete office.

Ban-Nam-Bac.....Complete office.

Muong-Sai.....Secondary office.

Health service:

1 hospital with 1 colonial physician.

Cochinchina River Merchant Fleet:

Agency at Luang-Prabang with 1 European agent.

• 633
161

Savannakhet (capital).

Distance from Vien-Tiane: 483 kilometers.

Population: 13 Europeans, 300 natives.

Posts occupied by the native guard:

Savannakhet.....1 inspector.

Muong-Phin.....1 chief guardsman.

Postal and Telegraph service:

Savannakhet.....Complete office.

Song-Khone.....Complete office.

Muong-Phin.....Secondary office.

Cochinchina River Merchant Fleet:

Main agency at Savannakhet with workshop and slipway (3 Europeans).

Launches:

"Trentinian" with 3 Europeans.

"Colombert" with 3 Europeans.

"Massie," a replacement for the other two in case of damages.

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438
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[480] Construction of this line was authorized by the law of December 25, 1898, but its extension to the Mekong, and that is to say the means of entrance into Laos, is classified among the lines of third-degree urgency for which routes have scarcely been outlined.

Another railway has also been planned from Binh-Dinh to Attopeu, with the same third-degree urgency classification as the line from Savannakhet to Quang-Tri. It seems astonishing that anyone should have thought, even as a line of third-degree urgency, of a line which would start from the sea and end in a cul-de-sac, crossing one of the most mountainous regions which is inhabited by Kha tribes who are still partly unpacified. It may be that there is some thought of facilitating, by means of such a line, the exploitation of the gold and copper-bearing deposits in the region of Attopeu, even though it has now been established that the best deposits are located on the Se-Sane, more than 50 kilometers to the south of this point as the crow flies. It is also to be feared that by reason of the nature of the terrain this line may cost as much as 200,000 francs per kilometer, if the conditions of its route be compared with those of the lines estimated at 125,000 francs.

The projected Savannakhet-Quang-Tri railway does not seem to be the best solution for creating an entry into Laos and an outlet to the sea.

In the first place, it is not the shortest and most economical, despite the low elevation of the ridge of Ai-Lao, which is only 410 meters in altitude.

Besides, Savannakhet has never been a trade center and market of distribution and transit like Luang-Prabang, Pak-Lay, Nong-Khay and Bassac.

To be sure, it is an administrative center situated opposite the market of Ban-Mouk and the seat of the main office of the Cochinchina River Merchant Fleet Company [Compagnie des Messageries Fluviales], which has storehouses, a depot, workshops, etc. there. But this center was built up from nothing scarcely six years ago. The market of Ban-Mouk is an unimportant one, and the office of the River Merchant Fleet is inaccessible to its steam launches during a large part of the year.

[481] If Nong-Khay, instead of Ban-Mouk, were located opposite Savannakhet, there would be an advantage to capturing this great market in which the major part of the trade of Upper and Middle Laos is centered, and to turn this trade away from Bangkok to the profit of Tourane. But one must surrender to the evidence, for Nong-Khay

653 is no further from Vinh than Savannakhet is from Tourane. In fact,
496 the distance by steamship to Hin-Boun (or Tha-Kek) and from there
185 to Ben-Thuy [Illustration here] (port of Vinh) by way of Nape, the
438 ridge of Tram-Mua and Ha-Trai by railway is only 500 kilometers,
whereas it is also 500 kilometers from Savannakhet to Tourane.

•633 It has been objected that the ridge of Tram-Mua, the highest
496 point on the line in question, is at an altitude of more than 1,200
185 meters, that many calcareous peaks encumber the route, and that
the port of Ben-Thuy has a sand bar (that of Cua-Hoi) which leaves
a depth of water of only 1.5 to 4.5 meters, depending on the tide.

All of this information is correct, although somewhat exaggerated. The ridge of Tram-Mua is not an insurmountable obstacle, and the road which crosses it leaves the Mekong at the 250 meter level and manages to reach it by rounding the [482] peaks of Pou-Hak and Pou-Kha-Sak and by rising gradually, ascending 1000 meters over a distance of about 140 to 150 kilometers.

Ha-Trai, moreover, which is situated on the river of Ngan-Pho, is at approximately the 100 meter level, and the descent from the ridge requires half a day on elephant back. The slope is very steep, without any doubt, on the Annamite side, since it represents the hypotenuse of a right triangle with a base 15 kilometers long and an altitude of 1,100 meters. It is not such, however, as to make the establishment of a railroad impossible, and cog-railways could also be used, as in Switzerland, at the steepest parts of the route.

Finally, the bar of Cua-Hoi is only an imaginary obstacle. Indeed, it would be sufficient merely to extend the railway beyond the bar, where the foundation is everywhere solid enough, or else to dredge a channel.

From the financial point of view the advantage also lies with the Hin-Boun-Ben-Thuy project, which will cost 30 millions instead of 61. Indeed, expenditures of 24 millions are anticipated for the Quang-Tri-Tourane section, to which 37 millions must be added for the Quang-Tri-Savannakhet section (about 300 kilometers at 125,000 francs per kilometer), whereas if we assume a cost of 150,000 francs (1) per kilometer for the Hin-Boun-Ben-Thuy line (about 200 kilometers),

(1) Cost anticipated for the Vietri-Lao-Kay and Saigon-Qui-Nhon lines.

we are confronted with an expenditure of 30 millions. The difference between 30 and 61 millions is so great that it would even be possible